IN THE SPECIFICATION

Please amend the paragraph beginning at page 4, line 25 as follows:

In the invention, a discharge lamp is equipped with a pair of electrodes facing each other in a discharge space within an arc tube. A metal halide and a rare gas are enclosed in the discharge space and the rare gas is enclosed at a high pressure so as to create a hot plasma of high temperature and pressure. The heat capacity and heat loss of the arc tube are suppressed, raising of tube wall temperature is promoted, and the metal halide compound vaporizes in such a manner as to emit light. The metal halide contains at least scandium iodide or sodium iodide.

Here;

$P/(Q \cdot t)$ [[≅]] ≥ 0.20

where Q is the content volume of the arc tube (μl), t is maximum wall thickness (mm), and P is pressure of the xenon gas at room temperature (atms).

Moreover;

$P/S1/S2$ [[≅]] ≥ 0.06

where S1 is a cross-sectional area of a portion of the greatest internal diameter of the discharge space of the arc tube (mm^2), and S2 is a cross-sectional area of material forming the portion of the greatest internal diameter of the arc tube (mm^2).

Please amend the paragraph beginning at page 9, line 1 as follows:

Fig. 2 plots the visible light-emitting efficiency with respect to a function P/(Q•t), where P is the pressure (atms) of the xenon gas, Q is the arc tube content volume (μl) and t is the maximum arc tube wall thickness (mm). It can be seen that the visible light-emitting efficiency is 70 lm/W or more when the function P/(Q•t) satisfies the relationship of equation (1).

$$P/(Q \cdot t) \; [[\cong]] \geq 0.20 \qquad \text{equation (1)}$$

Please amend the paragraph beginning at page 10, line 1 as follows:

In FIG. 3, the pressure P of the xenon within the arc tube at room temperature divided by the values for S1 and S2 is plotted against the luminous efficiency of the arc tube. When equation (2) below is satisfied, a high luminous efficiency of 80 lm/W or more can be obtained.

$$P/S1/S2 \; [[\cong]] \geq 0.06 \qquad \text{equation (2)}$$

Please amend the paragraph beginning at page 10, line 5 as follows:

The tube wall is located closer to the high-temperature arc as the cross-section of the arc tube discharge space becomes smaller, i.e. as the internal diameter becomes smaller. Further, the loss due to thermal conduction is ~~increased~~ decreased and the heat capacity is reduced as the cross-section of the arc tube material becomes smaller, and the wall temperature rises. The evaporation pressure of the metal halides therefore rises and the amount of visible light generated is increased.

Please amend the paragraph beginning at page 10, line 11 as follows:

An embodiment of the invention is shown in FIG. 1. The maximum outer diameter of the arc tube is approximately 6.00 mm, the maximum inner diameter is approximately 2.70 mm, the content volume is approximately 25.4 μl [[/ mm]], the maximum wall thickness is approximately 1.65 mm, the arc tube length is approximately 7.1 mm and the distance between the electrodes is approximately 3.7 mm. The ratio by weight of sodium ~~nitride~~ iodide to scandium ~~nitride~~ iodide is approximately 3:1, giving a total of 0.4mg, and the xenon gas is enclosed at 10atms. Accordingly;

$$P/(Q \cdot t)\ [[\cong]] = 0.239$$

and the relationship of equation (1) is satisfied. Further, if S1 [[≅]] = 5.723 (mm^2) and S2 [[≅]] = 22.54 (mm^2), then

$$P/S1/S2\ [[\cong]] = 0.078$$

and the relationship of equation (2) is also satisfied.